Date: Fri, 11 Jun 93 04:30:02 PDT
From: Packet-Radio Mailing List and Newsgroup <packet-radio@ucsd.edu>
Errors-To: Packet-Radio-Errors@UCSD.Edu
Reply-To: Packet-Radio@UCSD.Edu
Precedence: Bulk
Subject: Packet-Radio Digest V93 #163
To: packet-radio

Packet-Radio Digest Fri, 11 Jun 93 Volume 93 : Issue 163

Today's Topics:

Send Replies or notes for publication to: <Packet-Radio@UCSD.Edu>
Send subscription requests to: <Packet-Radio-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Packet-Radio Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/packet-radio".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Wed, 9 Jun 1993 20:03:24 GMT
From: sdd.hp.com!col.hp.com!news.dtc.hp.com!hpscit.sc.hp.com!hplextra!hpfcso!
hplvec!tcline@network.UCSD.EDU
Subject: cheap start
To: packet-radio@ucsd.edu

> In rec.radio.amateur.packet, dburns@cvbnet.prime.com (Dana Burns x4370 5-2)
writes:
>
>   I have a Novice license and would like to get started
>   in packet cheap. I have an old IBM PC, but am interested
>   in getting other Novices in my family started as well.
>   Can someone give me a rundown of approximate costs of
>   TNC's and radios that can be used? I'm assuming that
>   there's ftp-able Free/ShareWare available for use.

>
>   --
>   Dana   \\\
>   ----===---
>   ///

Here's what I know about cheap packet systems:

Summary of Inexpensive 2m Packet Systems:
---

1. For PC-compatibles:

   A. Poor Man's Packet: (the authors are on internet)
      I. Page 8 August 1991 73 magazine.
      II. Anonymous FTP: helios.tn.cornell.edu (128.84.241.2),
      /pub/PMP/pmp11dsk.zip (includes executables, source,
      article text, erratta, assembly notes, etc.).

   B. BayCom revision 1.50a software and either BAYPAC or use the
      TCM3105.ZIP Postscript schematic:
      I. Review: December 1991 issue of 73.
      II. Anonymous FTP: WSMR-SIMTEL20.ARMY.MIL (192.88.110.20) or
            mirror sites like OAK.Oakland.Edu (141.210.10.117)
                              wuarchive.wustl.edu (128.252.135.4)
                              ftp.uu.net (137.39.1.9)
                              nic.funet.fi (128.214.6.100)
                              src.doc.ic.ac.uk (146.169.3.7)
                              archie.au (139.130.4.6).

            I have used wuarchive.wustl.edu (128.252.135.4):
              /mirrors/msdos/packet/tcm3105.zip and
              /mirrors/msdos/packet/baycom15.zip
       (=BayCom revision 1.50)

      The later revision 1.50a is available from ucsd.edu :
      /hamradio/packet/baycom/baycom15.zip (168789 bytes)
      and also an ENGLISH manual for rev 1.2:
      /hamradio/packet/baycom/manual.zip (42424 bytes)

      Note: Some older versions of the tcm3105.zip schematic
         have 2 R2s. I think the "R2" connected to the
         CTS line should be corrected to R3, a 2.2K ohm.

2. For Macintosh:

PacketMac Modem:
   Page 8 October 1992 73, and errata page 54 November 1992 73.
   (the author's listed internet email (Francis4@apple.com) did
   not work, 2-24-93)

3. Commodore 64: I was told:
> Digicom 64 in the August 1986 73 (date ??).
>
> The software is public domain and is usually bundled with a
> "kit," PCB, hard-to-find parts, etc.; from some hams that
> translated the original documentation from the German.
>
> A more-or-less accurate list of the guys that can supply the kit
> is listed in the ARRL publication, "Gateway to Packet Radio."

Notes:
-----

1. I have only used Poor Man's Packet, but hope to try BayCom soon.

2. If you have Internet mail but not FTP, try the FTP mail server:
   send a mail message with the subject "help" and a single message
   line "help" to ftpmail@decwrl.dec.com.

3. You may require an 8-bit editor to modify the the Poor Man's
   Packet source code, I suggest Microsoft's m editor (came with my C
   compiler), or Microsoft Windows 3.1's Notepad editor.

4. I have seen these ads:

   BayPac BP-1, "$49.95 + shipping" (73, Jan 1993, p54):
       Tigertronics Inc
       400 Daily Lane
       P.O. Box 5210
       Grants Pass, OR 97527
       800-822-9722
       503-474-6700

   BayMod-9, "$65 + tax and shipping" (73, Oct 1992, p51):
       PacComm Packet Radio Systems, Inc
       4413 N. Hesperides St.
       Tampa, FL 33614-7618
       800-486-7388
       813-874-2980
       813-874-8696 FAX

   Digicom for Commodore 64 (Nuts + Volts, Feb 93, p11):

Crawford Amateur Radio Society
R.D. #1, Box 101
Guys Mills, PA 16327
$49 + $4 shipping
Catalogue $1

5. I recently learned there is ALOT more available from:
> For amateur radio related information, send a message to:
> ham-server@grafex.Cupertino.CA.US
> Place only HELP and INDEX on separate lines in the text.

Please email me or post any additions/corrections.

73

Ted Cline, N0RQV
ted_cline@hpisla.lvld.hp.com
tcline@hpislx.lvld.hp.com
VOICE: (303) 679-2352
FAX: (303) 679-5971

VXI Systems Division
Hewlett-Packard, M/S CU-326
815 14th Street SW
P.O. Box 301
Loveland, CO 80537 USA

Date: Fri, 11 Jun 1993 02:21:27 GMT
From: swrinde!gatech!usenet.ufl.edu!zeno.fit.edu!zach.fit.edu!
ree88132@network.UCSD.EDU
Subject: Digital microwave project
To: packet-radio@ucsd.edu

I am about to embark on a project that envolves the use of microwaves
to transfer digital data. Not being very experienced in microwave
technology I have a few questions to ask the microwave gurus. First,
a little background: This project will link two computers together
through their serial ports at initially 9600 baud but later at speeds
of up to 115K baud. The eventual goal is to use SLIP through this
connection to get onto the network. The distance will be approx.
10 to 15 miles.

1. Where is a good place to get cheap microwave components from?
2. What frequencies can be used for this microwave link? HAM?
   Are there allocated frequencies for such experimentation and
   do they require a license?
3. If I want full duplex, do I need 2 antennas at each end or can
   one serve as a bidirectional with 2 separate frequencies used?
4. Can one antenna be used to transmit AND receive (related to question
   3 and 5).

5. Which antenna do I use? Horn? Dish? (related to question 2 about frequency).
6. Has this been done before with personal/amateur setup?
7. Where can I find out more info on this stuff?
8. What security considerations are necessary? I will probably want to encrypt/scramble so eavesdroppers can't get system passwords etc. Is there data encryption on a chip available?
9. Is it feasable to use data compression or correction like v.42 and v.42bis? I have seen it on a chip but have never used it before. Are these chips very expensive? Is there a real easy way to error correct that's cheap?
10. Since I'll be using SLIP at my end I guess the other end can be hooked up to any machine on the network? (ie. a SUN, but what about an IBM PC or Amiga that is not running UNIX?)

I know this sounds really complicated but that's why I want to do this. Plus it can be very useful, but I don't have too many high hopes on getting on the network because of the network administrators security concerns.

Thanks ahead of time for all the wonderful mail I am about to receive :-)

Date: Fri, 11 Jun 1993 03:04:52 GMT
From: csus.edu!netcom.com!topolski@decwrl.dec.com
Subject: internet->packet email gateway?
To: packet-radio@ucsd.edu

Jon Krueger (jpk@Ingres.COM) wrote:
: Is there a gateway that forwards email between the Internet and
: packet radio? If so, what's the mail address syntax? Thanks.

I use the n0ary gate and BBS. Not only can you send email but you can also participate in bulletins or any other BBS function. It is really cool. Here is the whole file ... the author's address is at the end.

----------(cut here)----------

There is an error in the "73" magazine article. If you are an internet only user the action of registering you automatically enables email forwarding. You do not need to perform the "Enabling" step.

N0ARY/BBS Internet Gateway Operating Instructions
August 7, 1992

LOCAL USERS:

Local users are those that log into the bbs via the bbs's telephone modem port (408-749-1950) or via one of the 3 tnc ports (144.93, 223.62, 433.37). Each local user has a bbs account that is used to customize how the bbs interacts with the user.

Local users can set their account up so that all incoming mail addressed to their call will be forwarded via a gateway to internet and on to other networks (mcimail, compuserve, etc). All the user needs to do is enter his email address and turn the feature on.

```
EMAIL bob@hal.com
EMAIL ON
```

When the EMAIL feature is turned on the packet message will be deleted at the time of forwarding through the gateway. So care should be taken that the paths are correct prior to turning the feature on, for instance enable it, send a test message, and disable it. After a successful transfer re-enable the feature. To disable the auto forwarding feature simply type:

```
EMAIL OFF
```

Messages can be sent by packet users to the internet users via the gateway. This applies to users at N0ARY as well as users at other bbs's. Begin by sending a message to IPGATE@N0ARY with the first line of the message being the letters "To:" followed by the internet address of the recipient.

```
N6ZFJ de N0ARY >
  sp ipgate@n0ary
Enter your subject:
  Meeting?
Enter your message body:
  To: bob@hal.com
  Are you planning to attend the club meeting on Thursday? Give me
  a call. 73, Connie
  ^Z
```

NOTE: That the recipient cannot respond to the message unless they are a ham and registered with the gateway. He/she becomes registered by sending a message from his internet host to gateway-request@arasmith.com.

REMOTE USERS:

Remote users are those that do not log into N0ARY directly but merely appear from the packet world to use it as home. If a packet user checks the "White Pages" for a remote user the entry comes back as @N0ARY. The packet user then address his message to YOURCALL@N0ARY and the

bbs will do the translation and forwarding to internet.

It is not necessary for a person to know your actual internet address
nor use the SP IPGATE method described above. From the packet network
it appears that you are just another user at N0ARY.

WHITE PAGES:

The "White Pages" is a distributed database of all the bbs users. Most
bbs users in the US are represented in the database as well as many from
other countries. When a user chooses a home bbs, that bbs generates
an update that is sent to the regional servers and then distributed to
all the other bbs's. An entry consists of; call, home bbs, first name,
zip, city and state. When a user wishes to send another packet user
a message he/she consults the white pages (WP) for the home bbs.

REGISTERING:

Before a user, both local and remote, can send a message from internet
into the bbs system he/she must register with the gateway. This is done
by sending a message from the host that he/she intends to use to
gateway-request@arasmith.com with the following information:

  CALL:
  FIRST NAME:
  CITY & ST:
  ZIP:

When a request is received the "From" field is copied directly into
a file with the requesters call. Whenever the gateway receives a message
bound for packet it scans this file comparing on the "From" field. When a
match is found the gateway uses the associated call from then on. If
there is no match the mailer bounces the message with a one-liner
indicating the the user must register.

If you currently use another bbs as home this needs to be stated
in the request. Otherwise you will be assigned N0ARY as your home.
If you choose not to use N0ARY as your home you must make sure
people know to send your message to YOURCALL@N0ARY to pass through
the gate. Your WP entry will be wrong.

EXECUTING BBS COMMANDS REMOTELY:

Many of the commands available to local users is also available to
remote users by sending a message to the bbs. Here is a subset of

the commands currently available.

```
  LIST          listing messages
  LOOKUP        look up calls in the on-line callbook
  WHO call      dump a users account information
  READ          read messages and files
  USERS n       display the last n users to connect to the bbs
  INFO          display manual pages of various topics
  CD            change directories in the file system
  LS/DIR        display the contents of a directory
  WP call       look a user up in the "White Pages"
  HELP          get help on how to use a command
```

Not all commands available to local users can be accessed via the gate. All interactive commands are disabled as well as commands that modify the users account.

The command parser for the bbs is very powerful and the user can form very complex requests. For instance the following command is valid on the bbs:

```
  LIST LAST 20 BULLETINS FROM N0ARY
  LIST ALL BULLETINS ABOUT KENWOOD
```

The ABOUT keyword is used to search the subjects of messages for a given pattern, in this case KENWOOD. It can appear anywhere in the subject line.

This is an example of how complex all the commands can become. They can also be abbreviated down to the level understood my most other bbs programs. Any of the following will give the same results.

```
  L< N6ZFJ
  LIST FROM N6ZFJ
  LIS < N6ZFJ
  L FR N6ZFJ
```

In most cases a minimum number of unique characters is needed to distinguish a command.

You can get a list of commands and a translation chart from W0RLI to N0ARY by typing the following commands.

```
  INFO COMMANDS
  INFO W0RLI
```

Other commands that you may wish to execute are:

```
  INFO MANUAL
  HELP HELP
  HELP LIST
```

Now that you know what some of the commands are this is how you go
about executing them. You send a message to cmd@bbs.arasmith.com
with your commands entered one per line or separated by semicolons.
For example if you want to know if three of your buddies are in
the white pages and if the bbs has any messages about the ICOM W2A.

Send to:

```
  cmd@bbs.arasmith.com

  Subject: you can put anything here
  wp n0ary n6zfj n6une
  list all about w2a
  .
```

The bbs will execute the commands and respond to you via return mail.

SENDING MAIL TO PACKET:

Once registered the user is free to begin using the gateway to send
messages from his host through the gateway into the packet world.
How much you have to specify of a users address depends on how much
the bbs already knows about the user.

If the bbs knows the home bbs of the user and his home bbs is know to
the the N0ARY bbs, which most of them are, you simply need to supply
the call.

```
  n6zjf@bbs.arasmith.com
```

If the N0ARY bbs doesn't know of the user but does know where his
home bbs is then you need to supply just the home bbs call in
addition to the users.

```
  n6zjf%n6qmy@bbs.arasmith.com
```

Notice that the call and home bbs are separated by a percent sign '%'
rather then the '@' which is used in the packet domain. This is because
the '@' has a meaning in the internet address.

If the bbs has no knowledge of either the user or his home bbs then
you probably have the wrong home bbs or it is a new bbs. In which
case you will have to supply the full address so the bbs will know

how to route the message.

  n6zfj%n6qmy.#nocal.ca.usa.na@bbs.arasmith.com

This level of addressing is hardly ever needed and normally means that
the home bbs is in error.

Bulletins can be sent in a similar fashion. The address is made up
of a keyword, which can be any six character word and a distribution.
Distributions are local to an area. For instance SBAY is valid in
northern CA, it probably has no meaning at all in Topeka, KS.

Valid distributions are:
     ALLUS   please avoid this one
     ALLUSW   all western US
     ALLCA   all California, any 2 letter state should work

So if you trying to find a cw filter for a Kenwood TS440.

Send to:
  want%allca@bbs.arasmith.com

  Subject: Kenwood TS440, CW filter
  If you have one of these you are willing to part with please
  give me a call or leave message, thanks.
  73, N6ZFJ@N0ARY.#NOCAL.CA.USA.NA
  .

Be descriptive, brief, and always include your full return address in
the message. Also please try to limit your distributions to small
regions. Using the ALLUS distribution really slows down the flow of
messages.

INFO ON THE N0ARY BBS:

The bbs came into being in July of 1990 and as of July of 1992 had
over 600 users, 500 registered as home. The bbs has 3 rf ports, 2
phone ports, the internet port, and a voice synthesizer port. The
latter allows users to check for messages via DTMF from their handhelds.

The bbs itself runs on a Sun workstation under Unix. The code was
written by Bob Arasmith to focus on the user. Great care was taken
to make the bbs very forgiving to the novice user but very flexible
and powerful for the old-timer. The bbs can be configured to interact
with each user differently. Some examples are:

 * List messages in either descending or ascending order.

 * Specify a list of keywords that the user wishes not to see displayed
   when a list is performed, similar to a kill file.

 * .signature and .vacation files.

 * Specify how many lines the users terminal is capable of displaying
   before scrolling, the bbs will feed info this many lines and pause
   allowing the user to catch up and continue or abort the operation.
   Similar to more.

 * Users can put commonly executed commands in keystroke macros that
   are accessible via a single keystroke.

A manual is currently available describing the commands and their
permutations. This manual will be available in late 1992 as a
postscript file. Run the command INFO MANUAL to learn how to get
one via the post office. It is not available in an ascii format.

If you have any questions about the internet gateway or the bbs
in general please drop me a message.

73, bob
     n0ary@n0ary.#nocal.ca.usa.na
     bob@arasmith.com

--

==
 Robert M || Internet: topolski@netcom.com
 Topolski || Packet: kj6yt@n0ary.#nocal.ca
==

Date: 10 Jun 1993 19:15:10 -0500
From: usc!cs.utexas.edu!not-for-mail@network.UCSD.EDU
Subject: packet station
To: packet-radio@ucsd.edu

(Posting this for a friend)

>I'm setting up a packet station. I have $400 all together. I'm thinking
>of getting the Alinco DR-1200T because it says its specially designed for
>packet operation. Is this true, or marketing bull?

>I'll be using TCP/IP (as crosstown.n2sxx.ampr.org), so I need a packet
>modem with KISS mode. However, I'd like to be flexable and able to upgrade

>to higher than 1200 baud.

>Any suggestions? Product names, prices, pros, cons, etc.

>Thanks.

/*** end message ***/

Reply directly to this address; I'll pass responses on.
(-- N2SXX (n2sxx.ampr.org))

--
Daniel Drucker N2SXX | xyzzy@gnu.ai.mit.edu [forwards to]
Finger first address for much info. | daniel%mertwig@uunet.uu.net
        Ask me about my internet culture research project.

Date: Fri, 11 Jun 1993 01:31:43 GMT
From: munnari.oz.au!newshost.anu.edu.au!sserve!cserve.cs.adfa.oz.au!
wkt@network.UCSD.EDU
Subject: Soundblaster as modem?
To: packet-radio@ucsd.edu

In article <1993Jun10.173148.2096@tellab5.tellabs.com>, jwa@tellabs.com (John W.
Albert) writes:
|> At a packet meeting last night, an amateur suggested writing an AX.25 packet
|> driver for a soundblaster card ....
|>   Warren vk1xwt

> A company called Willco Electronics has a DSP card called
> the "Ham Blaster" that can run modems and interface to Packet
> TNC's and software like Baycom, for example. Their address is

The advantage of the Soundblaster (the Pro, actually, the others don't have
a DSP chip) is that you can use it for other things, and you don't need a TNC.

Anybody know what DSP chip is in the Soundblaster Pro?

Thanks,
     Warren vk1xwt

Date: 10 Jun 93 20:49:16 GMT
From: kb2ear@princeton.edu
Subject: Spectrum
To: packet-radio@ucsd.edu

Announcing the creation of Spectrum, a new international communications and technology radio program. Spectrum will air Sundays Beginning June 13 at 0335 UTC via WWCR Nashville, Tn USA (7435 Khz) and the Let's Talk Radio Network (Spacenet3 Transponder 21, 5.8 Mhz Sub carrier Wide Band Audio). The program will feature produced segments on all aspects of communications from DC. through Light! In addition, there will be a live phone in segment with guests from the communications scene. The program will be hosted by Dave Marthouse, a long time radio enthusiast and professional broadcaster & Mark Emanuele a professional communications consultant. Spectrum will be underwritten by Holmdel, NJ based Overleaf International, a Data Processing and Telecommunications Consulting Firm. Spectrum will originate from studios at Overleaf's Holmdel, NJ Corporate HQ.

The kick-off program on the 13'th will feature a live call-in show. All of the Spectrum producers will be on hand to answer listeners questions via an 800 number. This number will be able to be used throughout North America. International callers will be able to take part via standart iddd calling. We can't provide international 800 access at this time.

Anyone with questions, comments, etc can send them to the following e-mail addresses.

Internet: askspectrum@attmail.com
GEnie: Spectrum

--
Dave Marthouse
Internet: n2aam@kb2ear.ampr.org
--
Scott R. Weis KB2EAR, EMT-A
Inernet: kb2ear@kb2ear.ampr.org
Packet: KB2EAR@KB2EAR.NJ.USA
Snail Mail: 10 Palmer Rd., Kendall Park, NJ, 08824-1228
Phone: +1 908 297 0469

Date: 11 Jun 93 04:29:45 GMT
From: kb2ear!@princeton.edu
Subject: Spectrum
To: packet-radio@ucsd.edu

FOR IMMEDIATE RELEASE

Announcing the creation of Spectrum, a new international communications and technology radio program. Spectrum will air Sundays Beginning June 13 at 0335 UTC via WWCR Nashville, Tn USA (7435 Khz) and the Let's Talk Radio Network (Spacenet3 Transponder 21, 5.8 Mhz Sub carrier Wide Band Audio). The program will feature produced segments on all aspects of communications from DC. through Light! In addition, there will be a live phone in segment with guests from the communications scene. The program will be hosted by Dave Marthouse, a long time radio enthusiast and professional broadcaster & Mark Emanuele a professional communications consultant. Spectrum will be underwritten by Holmdel, NJ based Overleaf International, a Data Processing and Telecommunications Consulting Firm. Spectrum will originate from studios at Overleaf's Holmdel, NJ Corporate HQ.

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Anyone with questions, comments, etc can send them to the following e-mail addresses.

Internet: askspectrum@attmail.com
GEnie: Spectrum
--
Scott R. Weis KB2EAR, EMT-A
Inernet: kb2ear@kb2ear.ampr.org
Packet: KB2EAR@KB2EAR.NJ.USA
Snail Mail: 10 Palmer Rd., Kendall Park, NJ, 08824-1228
Phone: +1 908 297 0469

Date: 11 Jun 93 10:28:05 GMT
From: news-mail-gateway@ucsd.edu
Subject: using a Sound Blaster board as a TNC
To: packet-radio@ucsd.edu

   Does anyone know what issuse of what magazine had the blurb about doing SSTV using a SB board? Has anyone contacted the program's author to discuss doing something similar with packet instead of SSTV. Thanks.

73's de Jack - kf5mg
AMPRnet   - kf5mg@kf5mg.ampr.org   - 44.28.0.14
AX25net   - kf5mg@kf5mg.#dfw.tx.usa.na - work (817) 962-4409
Internet   - kf5mg@vnet.ibm.com   - home (817) 488-4386

```
------------------------------------------------------------------------
|   "I am Homer, of Borg...prepare to be assim -- ooo, donuts."   |
------------------------------------------------------------------------

------------------------------

Date: Fri, 11 Jun 93 06:10:50 GMT
From: mnemosyne.cs.du.edu!nyx!srbechte@uunet.uu.net
Subject: wanted TNC
To: packet-radio@ucsd.edu

I'm looking for a good used TNC for around $40.  (minus shiping...:)

srbechte@nyx.cs.du.edu

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End of Packet-Radio Digest V93 #163
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